

Date: Tue, 11 May 93 04:30:18 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #565
To: Info-Hams

Info-Hams Digest Tue, 11 May 93 Volume 93 : Issue 565

Today's Topics:

1 xtal synth cb conversion?
 ARSENE INITIAL KEPS
Cellular Scanners/Congress Testimony
 Experience with Ramsey kits?
FLEA at MIT Sunday May 16th Cambridge MA
 Icom W21AT or Kenwood TH78A? Any opinions?
Radio FAQ Retrieval Stats for news.answers Archives
 VK2WI Weekly News, 9th May 1993
 WANTED: KDK and MFJ manuals
 Yaesu FT-530 - VCO Question

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 10 May 93 18:50:53 EST
From: titan.ksc.nasa.gov!k4dii.ksc.nasa.gov!user@ames.arpa
Subject: 1 xtal synth cb conversion?
To: info-hams@ucsd.edu

In article <C6sI45.HBG@news.cso.uiuc.edu>, aaa33750@uxa.cso.uiuc.edu
(Arnett) wrote:

> There are a couple of CB's (donations w/other junk) sitting around
> at our club. They have the single xtal 10.240MHz synthesizers. Is
> anybody familiar with these? What I'm looking for is the xtal
> frequency formula to put it in the 10m band with some degree of accuracy
> before I spend money to do it by trial and error. I don't care about
> channel spacing since that probably will be Fxtal/1024.

> Would this formula put me on the money?

Drew-

I haven't been keeping up with the latest CB designs, but was successful at developing conversions for several radios, about 10-15 years ago. The "best" one was a Sears SSB transceiver that used the 10.240 crystal you mentioned. However, that crystal was for deriving the PLL reference frequency. If you change its value, you will affect channel spacing more than channel frequency!

That particular Sears radio may have used a total of 6 crystals, as I recall. Two were for carrier generation, and were above and below the center of the 10.695 MHz first IF crystal filter. Another converted to the 455 KHz second IF (on receive only?). The 10.240 MHz was divided by 1024 to provide a 10 KHz PLL reference, and hence the 10 KHz basic channel spacing.

The two that I changed to move the radio's range, were also for upper and lower sideband. As I recall, these crystals were in the 12 MHz area, but were multiplied by three, to provide a 36 MHz area signal. To change the radio's frequency, the crystal frequency was changed by one third the amount you wanted to move the radio.

In one conversion, I rewired the carrier oscillator switch so that both positions were Upper Sideband. I selected the two new crystals so that they were 5 KHz apart on ten meters. By adding a small inductance in series with the Voltage Variable Capacitor, the RIT was expanded to a little over 5 KHz. I also made it work on both transmit and receive. Thus, the 40 channel radio provided 80 each, 5 KHz wide sub-bands.

I also developed a second version of this conversion, that divided the 10.240 crystal by 2048, to provide 5 KHz basic spacing. There were a couple other tricks with the channel selector switch, that increased the number of "channels" to around 90, not counting duplicates. However, the VCO couldn't handle such a wide range unless the 5 KHz spacing was used.

The result was a "smooth" transceiver, that worked well on receive, and sounded good on the air. However, you had to keep a frequency vs. channel conversion chart handy, if you wanted to know what frequency you were near!

In today's world, the Radio Shack HTX-100 is cheaper than the old Sears SSB CB, and has direct digital frequency readout (although they are usually 100 Hz or so low in frequency!).

73, Fred, K4DII

fred-mckenzie@ksc.nasa.gov

Date: 11 May 93 05:41:36 GMT
From: news-mail-gateway@ucsd.edu
Subject: ARSENE INITIAL KEPS
To: info-hams@ucsd.edu

Gentlemen:

I have taken the information that F6BVP has given me and come up with a estimate of the initial Keplerian elements for the ARSENE. This assumes that the launch occurs at 12-MAY-93 00:51:00 UTC. Please plug in the numbers and see what you think.

73 de wd0hhu@amsat.org

Satellite: ARSENE
Catalog number: 00001
Epoch time: 93132.05451390
Element set: 001
Inclination: 4.9999 deg
RA of node: 227.8710 deg
Eccentricity: 0.7318398
Arg of perigee: 178.0490 deg
Mean anomaly: 4.6094 deg
Mean motion: 2.25876533 rev/day
Decay rate: 0.0e-00 rev/day^2
Epoch rev: 0

Date: 10 May 1993 15:41:47 GMT
From: sun-barr!male.EBay.Sun.COM!exodus.Eng.Sun.COM!ale.Eng.Sun.COM!
geoffb@decwrl.dec.com
Subject: Cellular Scanners/Congress Testimony
To: info-hams@ucsd.edu

To: hgpeach@ms.uky.edu
Subject: Re: Cellular Scanner - I was there
Newsgroups: rec.radio.amateur.misc
In-Reply-To: <C6o38w.1Dv@ms.uky.edu>
References: <9305041901.AA17674@cmr.ncsl.nist.gov>
Organization: Sun Microsystems Computer Corp
Cc: buaas@trout.nosc.mil
Bcc:

In article <C6o38w.1Dv@ms.uky.edu> you write:

>
>>Quoted from p.28 of the May 3, 1993, issue of Washington Business, a Monday
>>section of the Washington Post:
>
>> "..... [House] Subcommittee [on telecommunications and finance] members
>>saw a newly purchased off-the-shelf cellular telephone become a 'scanner'
>>capable of picking up cellular conversations around Capitol Hill.
>> "It took a technician maybe three minutes to reprogram the phone's codes
>>so it could be used for eavesdropping. 'Every cellular phone is a scanner,
>
>How is all this done? Can these things be unlocked just from the number
>pad or is more involved? Do cell phones already have a computer interface
>built-in or did these guys have to invent one?

I was part of the group that testified at this hearing. We showed that certain varieties of cellular phones have routines built into their ROM code which allow scanning and performing other functions not listed in any manual. This was in the context of "nothing you say over this device should be considered secure".

And that "mandating a device as being illegal does not prevent creative persons from discovering a new use or mechanism in other devices which may perform the same function".

The Congressmen got the message loud and clear. Definitely a 5-9 UR SIG. The very first conversation which we locked on to was most impressive.

Before you ask for it, no we won't send out the "how to" information on this. We had to get immunity just to testify ! Suffice to say that anyone who writes their own cellular phone microprocessor assembler/disassembler as was done in this case can figure it out in short order.

However, the question now becomes one of, if every cellular phone is a scanner and scanners are illegal, should someone seek an injunction preventing manufacturers from constructing these devices ? ie, An injunction against Motorola, OKI, etc ? After all, they are technically in violation of Federal law.

We really believe that the Telecommunications Subcommittee members now see the problems with their previous legislation. We urged them to consider the fact that the value of protected information in a device is directly proportional to how much effort one would spend breaking into it, let's not repeat the cellular NAM problem in the next generation of devices, be they phones, computers or televisions. We showed HDTV, ISDN data and Voice, IP Multicast Audio and Video conferencing over the Internet, ATM video/audio, to get the message across about the coming era in communications and the flexibility of these devices. What's a phone, a radio, a computer ? They all can do any of the above.

This all has implications with respect to encryption (the current Clipper proposal), authentication and such for future devices, be they for commercial or amateur radio devices. That's what behind it all.

rgds

Geoffrey Baehr (N6LXA)
Director - Advanced Development
Sun Microsystems Computer Corp
geoffb@eng.sun.com
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Geoffrey Baehr
Sun Microsystems Computer Corp Internet: geoffb@ale.Eng.Sun.COM
2550 Garcia Ave Packet: N6LXA@N0ARY.#NOCAL.CA.USA.NA
Mailstop MTV 14-203
Mountain View, CA 94043
+1 415 336 2935
+1 415 336 4803 fax

Date: Tue, 11 May 1993 04:15:15 GMT
From: netcomsv!netcom.com!nagle@decwrl.dec.com
Subject: Experience with Ramsey kits?
To: info-hams@ucsd.edu

ez006683@othello.ucdavis.edu (Daniel D. Todd) writes:
>gumaer@merlin.etsu.edu (Mark W. Gumaer) writes:
>: My father bought a 6m ramsey receiver kit about a month ago. To his
dissatification he found that the resisters were not the right ones. Also, he
>: noticed that all the parts were not included in the box. So, needless to say
>: He will not buy another Ramsey.
>You didn't say, did you call ramsey and try to resolve the problem with
>them? I've never purchased one of their kits but would certainly try to
>make a call if there was a problem. If you did call how were you treated.

I bought a FM 20MHz receiver kit last year, mainly because I wanted a working circuit with an NE602 to see how critical the layout really is. Three parts were missing and one hole in the board was misdrilled (the wrong small hole had been drilled out big). A fax to Ramsey produced quick shipment of the missing parts. The unit worked OK, although I don't have any compatible receivers to judge it against. I got images of TV audio channels (clipped, because this is a narrowband receiver), ambulance dispatch, and an occasional cordless phone, so it's functioning.

I think they're great people, but they're not Heathkit; this is

a small-scale operation. A good way to get started in electronics.

John Nagle

Date: 11 May 1993 05:06:44 GMT
From: w1gsl@athena.mit.edu
Subject: FLEA at MIT Sunday May 16th Cambridge MA
To: info-hams@ucsd.edu

This coming Sunday the next

FLEA at MIT

***** \$1 buyers discount with hardcopy of this notice *****

COMPUTERS - ELECTRONICS - HAM RADIO - COMPUTERS - ELECTRONICS

FLEA all SUMMER at MIT
May 16th, 1993
9AM-2PM

Come to the city for a great flea - plenty of free parking.

MIT's electronics and ham radio flea will take place on the third Sunday of each month this summer, April thru October.

There is tailgate space for over 400 sellers and free, off-street parking for >1000 cars!

Buyers admission is \$2 (you get \$1 off if you're lucky enough to have a copy of our ad) and sellers spaces are \$10.00-each at the gate.

The flea will be held at the corner of Albany and Main streets in Cambridge; right in the Kendall Square area from 9AM to 2PM, with sellers set-up time starting at 7AM.

!! RAIN or SHINE !! Have no fear of rain, a covered tailgate area is available for all sellers (6'8" clearance).

Talk-in: 146.52 and W1XM/R-449.725/444.725 (PL 114.8/2A).

Sponsors: MIT Electronics Research Society
MIT UHF Repeater Association (W1XM)

MIT Radio Society (W1MX)
Harvard Wireless Club (W1AF)

For more info / advanced reservations 617 253 3776

***** \$1 buyers discount with hard copy of this notice *****

Steve Finberg W1GSL w1gsl@athena.mit.edu
PO Box 82 MIT Br Cambridge MA 02139 617 258 3754

Date: Tue, 11 May 1993 03:19:36 GMT
From: usc!howland.reston.ans.net!noc.near.net!das-news.harvard.edu!
cantaloupe.srv.cs.cmu.edu!rane@network.UCSD.EDU
Subject: Icom W21AT or Kenwood TH78A? Any opinions?
To: info-hams@ucsd.edu

1st off - anyone out there know where I can get all
the relevant materials inorder to get started in
amateur radio? I was looking through the flyers,
magazines and literature than my dad brought home
Dayton (he's not a ham either) and this looks like
an interesting way to ignore work ;-). I'm in the
pittsburgh, pennsylvania area, so if anyone else
out there is too, could you drop me a line about
the testing dates and material or where I can get it?

And secondly, has anyone compared the Icom W21AT and
the Kenwood TH78A? Could you tell me which one you
chose and why? I'm pretty sure I want a dual bander,
unless you can give a reason to go with 2m only (in
which case I'm looking at the Icom P2AT and Kenwood TH28A)

Finally, where do most of you do buy from? (mailorder).
Several groups I know of keep a FAQ/listing of readers
experiences with various mailorder places (rec.photo,
rec.audio,rec.video), is there anything like that for the
amateur groups?

Thanks,

Aaron

--

Aaron Hughes DoD#0482 The Freedom Junkie
rane+@pulsar.fac.cs.cmu.edu Bad cop. No donut.

Date: Tue, 11 May 1993 00:02:11 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!
zaphod.mps.ohio-state.edu!sol.ctr.columbia.edu!news.unomaha.edu!cwis.unomaha.edu!
pschleck@network.UCSD.EDU
Subject: Radio FAQ Retrieval Stats for news.answers Archives
To: info-hams@ucsd.edu

The following are some archive retrieval statistics from the news.answers archives at grasp1.univ-lyon1.fr and ftp.win.tue.nl. Although these are the smaller mirror archives in Western Europe (North American readers should use either rtfm.mit.edu under /pub/usenet or ftp.uu.net under /usenet), the statistics are useful for comparison. Statistics for the radio-related FAQ postings, in addition to the most popular Usenet FAQ for comparison, are provided below. The entire set of statistics are available via anonymous FTP from grasp1.insa-lyon.fr under /pub/faq-stats/APRIL-1993.

(Note: Since the exact archive names for the radio FAQ's were recently changed, the archive statistics had a combination of new and old archive names. I've substituted the new names where applicable.)

Summarized servers: grasp1.univ-lyon1.fr, ftp.win.tue.nl

[...]

Total Transfer Amount By File (April 1 - 30, 1993)

File Name	Number Of Requests
-----	-----
1 alt-sex/faq/part1	94
207 radio/monitoring/shortwave-faq	3
260 radio/ham-radio/faq/part1	2
276 radio/swap-guide	2
331 radio/cb-faq/part1	1
332 radio/cb-faq/part2	1
333 radio/cb-faq/part3	1
334 radio/cb-faq/part4	1
383 radio/ham-radio/archives	1
384 radio/ham-radio/faq/part2	1

385	radio/ham-radio/faq/part3	1
418	radio/personal-intro	1
425	radio/ham-radio/hams-on-usenet/part1	1
426	radio/monitoring/scanning	1

> 469

radio/ham-radio/elmers/admin	0
radio/ham-radio/elmers/list	0
radio/ham-radio/elmers/diff	0
radio/ham-radio/hams-on-usenet/part2	0
radio/ham-radio/hams-on-usenet/part3	0
radio/ham-radio/hams-on-usenet/part4	0
radio/monitoring/am-fm-dxing	0
radio/monitoring/introduction	0
radio/packet-faq	0
radio/rec-radio-info/welcome	0
radio/rec-radio-info/guidelines	0

Date: Tue, 11 May 93 03:29:42 GMT
From: munnari.oz.au!metro!ipso!runxtsa!cheese@network.UCSD.EDU
Subject: VK2WI Weekly News, 9th May 1993
To: info-hams@ucsd.edu

In article <1993May10.103227.7682@runx.oz.au> richardm@runx.oz.au (Richard Murnane) writes:

>[This is my last VKWI bulletin folks! The position of VK2
>Broadcast Coordinator became vacant at the AGM, and for
>various reasons I have decided not to make my services

Thanks Richard for the service, especially for posting it on USENET so those of us who have trouble keeping to a timetable on weekends could stay in touch with the news.

Looks like I'll have to wake up on Sundays now :-(

-Mark

--
Mark Cheeseman, Your Computer. Phn: +61 2 353 0143 Fax: +61 2 353 0720
Internet: cheese@asstdc.oz.au (cheese@runx.oz.au expires June 30 1993)
AMPRNet: vk2xgk@active.vk2xgk.ampr.org [44.136.8.70] Fido: 3:712/412.0

Date: 11 May 1993 00:47:51 GMT

From: sdd.hp.com!ux1.cso.uiuc.edu!moe.ksu.ksu.edu!uafhp!plaws@network.UCSD.EDU
Subject: WANTED: KDK and MFJ manuals
To: info-hams@ucsd.edu

Need manuals for KDK2025 2m rig and MFJ Versa Tuner 2. Will pay reasonable copy/mail costs.

Please reply to plaws@uafhp.uark.edu or jsc@engr.uark.edu.

TNX ES C U ON FD.
73 DE N5UWY

Peter Laws, N5UWY
President,
Amateur Radio Club,
University of Arkansas
W5YM

Date: 11 May 1993 03:29:11 GMT
From: usc!elroy.jpl.nasa.gov!nntp-server.caltech.edu!slr@network.UCSD.EDU
Subject: Yaesu FT-530 - VCO Question
To: info-hams@ucsd.edu

First off, many thanks for the replies I received on my recent post reagrding opinions on the Yaesu FT-530.

Today I bought one! - Tonight I did the modification. (I've already modified another one of these so doing it the second time was fairly easy.)

Transmit seems to work from about 400 Mhz thru 459.5 Mhz. Does anyone know if the VCO in this radio could be re-tuned for 420 Mhz - 479 Mhz ? (Although the 400-420 Mhz offers quite a bit of interesting stuff to listen to, esp. here in Los Angeles, I really have no desire to strike up a QSO with the DEA :-)

I seem to recall some of the Icoms having a pretty wide VCO tuning "window" about 50 Mhz wide on UHF.

I called Yaesu today and was told they have a NEW VCO coming out around July. The person I spoke with didn't seem to know if existing radios could be retrofitted or not.

Anyone else know ?

--

Steve L. Rhoades	Voice: (818) 794-6004
Post Office Box 1000	
Mt. Wilson, Calif 91023	Internet: slr@cco.caltech.edu

End of Info-Hams Digest V93 #565
